

PROJECT REPORT

Of

ENGINE FLUSH OIL

PURPOSE OF THE DOCUMENT

This particular pre-feasibility is regarding Engine Flush Oil unit.

The objective of the pre-feasibility report is primarily to facilitate potential entrepreneurs in project identification for investment and in order to serve his objective; the document covers various aspects of the project concept development, start-up, marketing, finance and management.

[We can modify the project capacity and project cost as per your requirement. We can also prepare project report on any subject as per your requirement.]



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PROJECT AT A GLANCE

- 1 Name of the Entrepreneur : xxxxxxxxxxxx
- 2 Constitution (legal Status) : xxxxxxxxxxxx
- 3 Father / Spouse Name : xxxxxxxxxxxxxx
- 4 Unit Address : xxxxxxxxxxxxxxxxxxxxxxxxx
- District : xxxxxxxx
- Pin: xxxxxxxx State: xxxxx
- Mobile xxxxxxxx
- 5 Product and By Product : **ENGINE FLUSH OIL**
- 6 Name of the project / business activity proposed : **ENGINE FLUSH OIL UNIT**
- 7 Cost of Project : Rs.24.87 Lakhs
- 8 Means of Finance
- Term Loan Rs.15.66 Lakhs
- Own Capital Rs.2.49 Lakhs
- Working Capital Rs.6.73 Lakhs
- 9 Debt Service Coverage Ratio : 2.44
- 10 Pay Back Period : 5 Years
- 11 Project Implementation Period : 5-6 Months
- 12 Break Even Point : 27%
- 13 Employment : 12 Persons
- 14 Power Requirement : 40.00 HP
- 15 Major Raw materials : Oil and other consumables
- 16 Estimated Annual Sales Turnover (Max Capacity) : 185.07 Lakhs
- 17 Detailed Cost of Project & Means of Finance

COST OF PROJECT

(Rs. In Lakhs)

Particulars	Amount
Land	Own/Rented
Plant & Machinery	16.40
Furniture & Fixtures	1.00
Working Capital	7.47
Total	24.87

MEANS OF FINANCE

Particulars	Amount
Own Contribution	2.49
Working Capital(Finance)	6.73
Term Loan	15.66
Total	24.87

ENGINE FLUSH OIL UNIT

Introduction:

An Engine Flush is an oil product that is intended to remove the Sludge and Heavy deposits that may have built up in the engine from the oil. So, they remove those deposits from the internal combustion engines of cars that have covered more than 120, 000 Km or 75, 000 Miles. All the Engine flush products are aftermarket solvent packages and a majority of them are easy to use. They are added to the Engine oil through the oil-filler port and then the engine is idled for 10 – 15 minutes. This gives time for the flush to mix with the oil, travel with the oil to the areas where there are sludge and deposits and then dissolve them thus cleaning them. The oil is then drained along with much of the oil sludge that the flush was able to dissolve. The oil can now be changed and the oil filter can be replaced after that.



Uses & Market Potential:

The product uses for Engine Flush can be described as follows:

1. Over time sludge, gunk, and carbon deposits can accumulate in the engine, reducing power as well as fuel economy and increasing engine wear. Engine flush oil prevents these from happening.
2. Engine flushes reaches those parts of the engine that are hard to clean.
3. It keeps the motor oil clean.
4. Improves the fuel economies of the machines

The global Engine Flush market is a part of the Automobile Parts Cleaner and Degassers and the market for the same was valued at USD 38.2 Billion in 2017 and is expected to reach a value of USD 47.5 Billion by 2024 growing at a rate of 3.5 % in the forecast period of 2019 – 2025. The purpose of the Engine flush is to clean the entire lubrication system of the machine and thereby it helps in enhanced performance of the machine or vehicle. It can eliminate deposits with finest contaminants in the diameter of 5 – 20 microns. The market is mainly driven by the demand for extending the lives of the Engines by keeping them clean. The flush cleans the engine within a few minutes by dissolving them and this short time duration is an attractive feature towards different customers.

Product:

Engine Flush Oil

Raw Material:

The raw materials required for the manufacturing of Engine Flush are:

- An oil having at least 15 % aromatics as per ASTM D-2007,
- At least 2.5 % of a nitrogen containing dispersant,
- And at least 0.6 % over-based metal detergent.

Manufacturing Process:

- Raw material procurement
- Dehydration
- Oil Blending
- Addition of additives
- Packaging
- Storage & Despatch

Area:

The industrial setup requires space for Inventory, workshop or manufacturing area, space for power supply utilities and polishing area. Also, some of the area of building is required for office staff facilities, office furniture, etc. Thus, the approximate total area required for complete industrial setup is 1200-1800Sqft.

Cost of Machines:

S.N.	Description	Unit	Rate	Amount
1	Mixing kettles	1	250000	250000
2	Multiple heads Liquid filling line	1	650000	650000
3	Industrial pumps	1	180000	180000
4	Common Electric motors	1	260000	260000
5	Industrial Steam Boiler	1	250000	250000
6	Other equipment's and testing tools	-	50000	50000
	Total Amount			16,40,000

Power Requirement- The estimated Power requirement is taken at 40 HP.

Manpower Requirement— Following manpower is required:

- Machine operator-2
- Skilled/unskilled worker-3
- Helper-4
- Manager cum Accountant-1
- Sales Personnel-2

FINANCIALS

PROJECTED BALANCE SHEET

PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
<u>Capital Account</u>					
Opening Balance	-	3.34	5.17	8.06	11.75
Add: Additions	2.49	-	-	-	-
Add: Net Profit	4.05	5.63	7.19	8.69	10.17
Less: Drawings	3.20	3.80	4.30	5.00	6.00
Closing Balance	3.34	5.17	8.06	11.75	15.92
CC Limit	6.73	6.73	6.73	6.73	6.73
Term Loan	13.92	10.44	6.96	3.48	-
Sundry Creditors	3.15	3.75	4.37	5.01	5.68
TOTAL :	27.14	26.08	26.12	26.97	28.33
<u>APPLICATION OF FUND</u>					
Fixed Assets (Gross)	17.40	17.40	17.40	17.40	17.40
Gross Dep.	2.56	4.74	6.60	8.18	9.53
Net Fixed Assets	14.84	12.66	10.80	9.22	7.87
Current Assets					
Sundry Debtors	4.39	5.52	6.51	7.55	8.64
Stock in Hand	6.23	7.45	8.69	9.99	11.35
Cash and Bank	1.67	0.46	0.12	0.21	0.48
TOTAL :	27.14	26.08	26.12	26.97	28.33

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PROJECTED PROFITABILITY STATEMENT

PARTICULARS	I	II	III	IV	V
<u>A) SALES</u>					
Gross Sale	94.05	118.32	139.52	161.77	185.07
Total (A)	94.05	118.32	139.52	161.77	185.07
<u>B) COST OF SALES</u>					
Raw Material Consumed	63.00	74.97	87.40	100.28	113.66
Electricity Expenses	2.69	3.13	3.58	4.03	4.48
Repair & Maintenance	2.35	2.96	3.49	4.04	4.63
Labour & Wages	12.10	15.72	19.18	23.02	27.16
Depreciation	2.56	2.18	1.86	1.58	1.35
Cost of Production	82.69	98.97	115.51	132.96	151.27
Add: Opening Stock /WIP	-	4.13	4.95	5.78	6.65
Less: Closing Stock /WIP	4.13	4.95	5.78	6.65	7.56
Cost of Sales (B)	78.56	98.15	114.68	132.09	150.36
C) GROSS PROFIT (A-B)	15.49	20.17	24.84	29.68	34.71
	16.47%	17.05%	17.81%	18.35%	18.76%
D) Bank Interest i) (Term Loan)	1.70	1.39	1.00	0.62	0.24
ii) Interest On Working Capital	0.74	0.74	0.74	0.74	0.74
E) Salary to Staff	7.31	8.77	10.70	12.84	14.38
F) Selling & Adm Expenses Exp.	1.69	3.31	4.46	5.66	7.40
G) TOTAL (D+E+F)	11.44	14.21	16.91	19.86	22.76
H) NET PROFIT	4.05	5.96	7.93	9.82	11.95
	4.3%	5.0%	5.7%	6.1%	6.5%
I) Taxation	-	0.33	0.74	1.13	1.78
J) PROFIT (After Tax)	4.05	5.63	7.19	8.69	10.17

PROJECTED CASH FLOW STATEMENT

PARTICULARS	I	II	III	IV	V
<u>SOURCES OF FUND</u>					
Own Contribution	2.49	-	-	-	-
Reserve & Surplus	4.05	5.96	7.93	9.82	11.95
Depreciation & Exp. W/off	2.56	2.18	1.86	1.58	1.35
Increase In Cash Credit	6.73	-	-	-	-
Increase In Term Loan	15.66	-	-	-	-
Increase in Creditors	3.15	0.60	0.62	0.64	0.67
TOTAL :	34.64	8.74	10.41	12.05	13.97
<u>APPLICATION OF FUND</u>					
Increase in Fixed Assets	17.40	-	-	-	-
Increase in Stock	6.23	1.21	1.24	1.30	1.36
Increase in Debtors	4.39	1.13	0.99	1.04	1.09
Repayment of Term Loan	1.74	3.48	3.48	3.48	3.48
Taxation	-	0.33	0.74	1.13	1.78
Drawings	3.20	3.80	4.30	5.00	6.00
TOTAL :	32.96	9.96	10.75	11.95	13.71
Opening Cash & Bank Balance	-	1.67	0.46	0.12	0.21
Add : Surplus	1.67	- 1.22	- 0.34	0.09	0.26
Closing Cash & Bank Balance	1.67	0.46	0.12	0.21	0.48

COMPUTATION OF CLOSING STOCK & WORKING CAPITAL

PARTICULARS	I	II	III	IV	V
Finished Goods					
(15 Days requirement)	4.13	4.95	5.78	6.65	7.56
Raw Material					
(10 Days requirement)	2.10	2.50	2.91	3.34	3.79
Closing Stock	6.23	7.45	8.69	9.99	11.35

COMPUTATION OF WORKING CAPITAL REQUIREMENT

Particulars	Amount	Margin(10%)	Net Amount
Stock in Hand	6.23		
Less:			
Sundry Creditors	3.15		
Paid Stock	3.08	0.31	2.78
Sundry Debtors	4.39	0.44	3.95
Working Capital Requirement			6.73
Margin			0.75
MPBF			6.73
Working Capital Demand			6.73

REPAYMENT SCHEDULE OF TERM LOAN

11.0%

Year	Particulars	Amount	Addition	Total	Interest	Repayment	CI Balance
I	Opening Balance						
	Ist Quarter	-	15.66	15.66	0.43	-	15.66
	Iind Quarter	15.66	-	15.66	0.43	-	15.66
	IIIrd Quarter	15.66	-	15.66	0.43	0.87	14.79
	Ivth Quarter	14.79	-	14.79	0.41	0.87	13.92
					1.70	1.74	
II	Opening Balance						
	Ist Quarter	13.92	-	13.92	0.38	0.87	13.05
	Iind Quarter	13.05	-	13.05	0.36	0.87	12.18
	IIIrd Quarter	12.18	-	12.18	0.33	0.87	11.31
	Ivth Quarter	11.31		11.31	0.31	0.87	10.44
					1.39	3.48	
III	Opening Balance						
	Ist Quarter	10.44	-	10.44	0.29	0.87	9.57
	Iind Quarter	9.57	-	9.57	0.26	0.87	8.70
	IIIrd Quarter	8.70	-	8.70	0.24	0.87	7.83
	Ivth Quarter	7.83		7.83	0.22	0.87	6.96
					1.00	3.48	
IV	Opening Balance						
	Ist Quarter	6.96	-	6.96	0.19	0.87	6.09
	Iind Quarter	6.09	-	6.09	0.17	0.87	5.22
	IIIrd Quarter	5.22	-	5.22	0.14	0.87	4.35
	Ivth Quarter	4.35		4.35	0.12	0.87	3.48
					0.62	3.48	
V	Opening Balance						
	Ist Quarter	3.48	-	3.48	0.10	0.87	2.61
	Iind Quarter	2.61	-	2.61	0.07	0.87	1.74
	IIIrd Quarter	1.74	-	1.74	0.05	0.87	0.87
	Ivth Quarter	0.87		0.87	0.02	0.87	0.00
					0.24	3.48	

Door to Door Period 60 Months
Moratorium Period 6 Months
Repayment Period 54 Months

CALCULATION OF D.S.C.R

PARTICULARS	I	II	III	IV	V
<u>CASH ACCRUALS</u>	6.61	7.81	9.05	10.27	11.52
Interest on Term Loan	1.70	1.39	1.00	0.62	0.24
Total	8.31	9.20	10.06	10.89	11.76
<u>REPAYMENT</u>					
Repayment of Term Loan	1.74	3.48	3.48	3.48	3.48
Interest on Term Loan	1.70	1.39	1.00	0.62	0.24
Total	3.44	4.87	4.48	4.10	3.72
DEBT SERVICE COVERAGE RATIO	2.42	1.89	2.24	2.66	3.16
AVERAGE D.S.C.R.			2.44		

Assumptions:

1. Production Capacity of Engine Flush Oil unit is taken at 500 Ltr per day. First year, Capacity has been taken @ 30%.
2. Working shift of 10 hours per day has been considered.
3. Raw Material stock and Finished goods closing stock has been taken for 10 days and 15 days respectively.
4. Credit period to Sundry Debtors has been given for 14 days.
5. Credit period by the Sundry Creditors has been provided for 15 days.
6. Depreciation and Income tax has been taken as per the Income tax Act,1961.
7. Interest on working Capital Loan and Term loan has been taken at 11%.
8. Salary and wages rates are taken as per the Current Market Scenario.
9. Power Consumption has been taken at 40 HP.
10. Selling Prices & Raw material costing has been increased by 3% & 2% respectively in the subsequent years.

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